

FIG. 2A

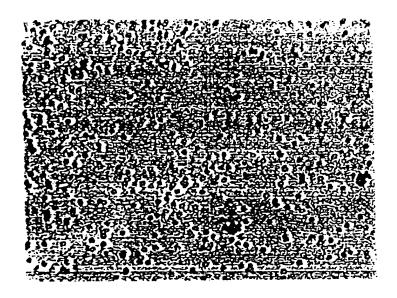


FIG. 2B

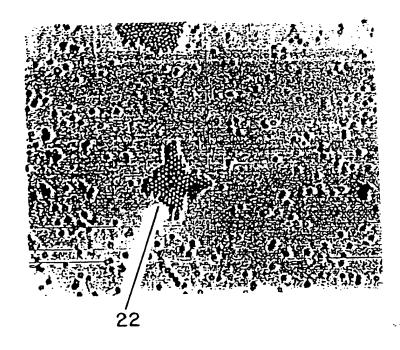


FIG. 2C

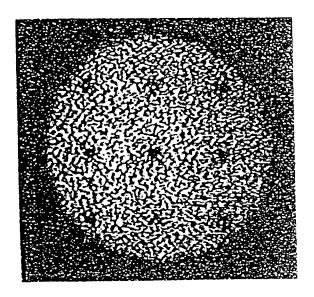
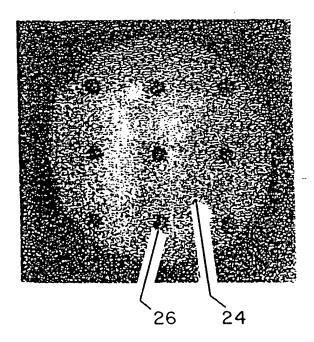
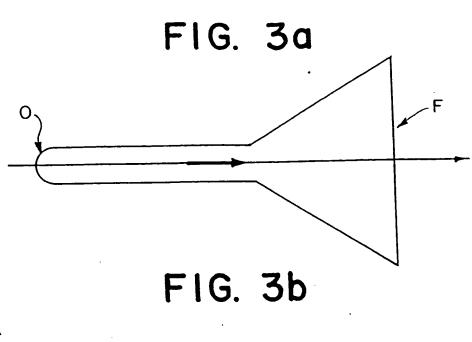
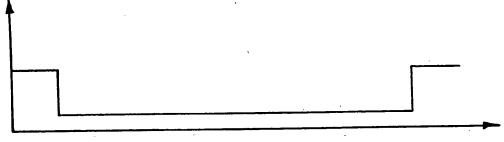


FIG. 2D





£ ..





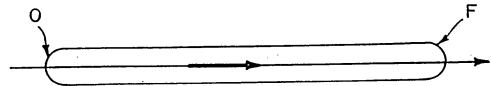


FIG. 3d

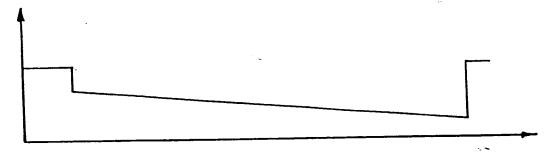


FIG. 3C

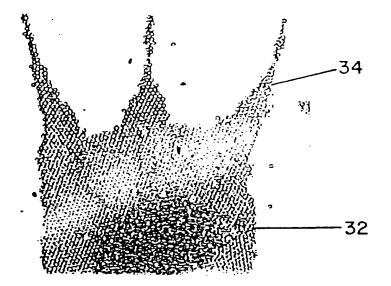


FIG. 3D

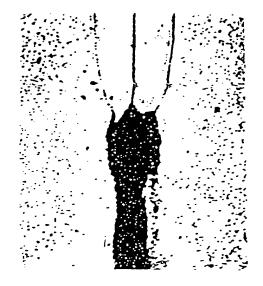


FIG. 4A

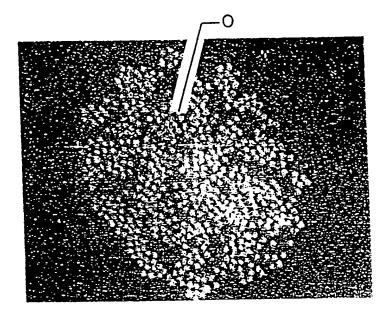


FIG. 4B

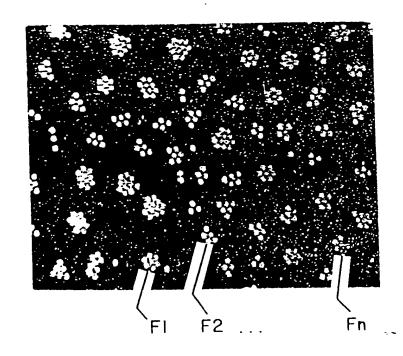
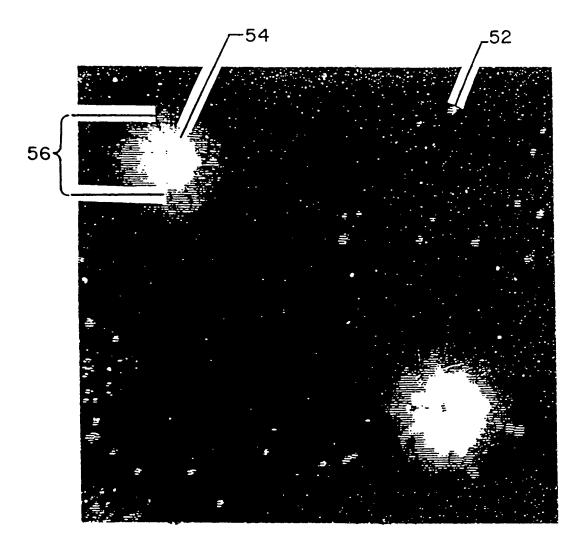


FIG. 5

Z ...



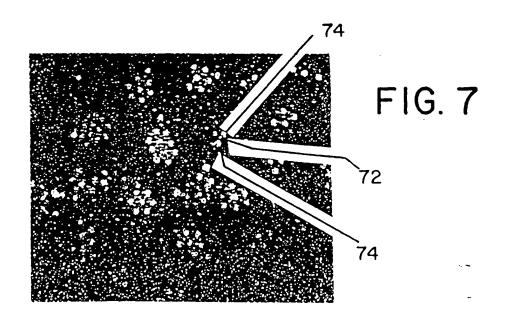


FIG. 6a

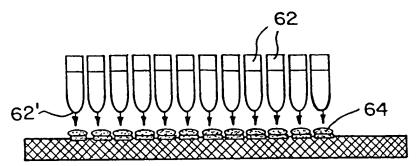
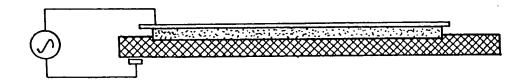
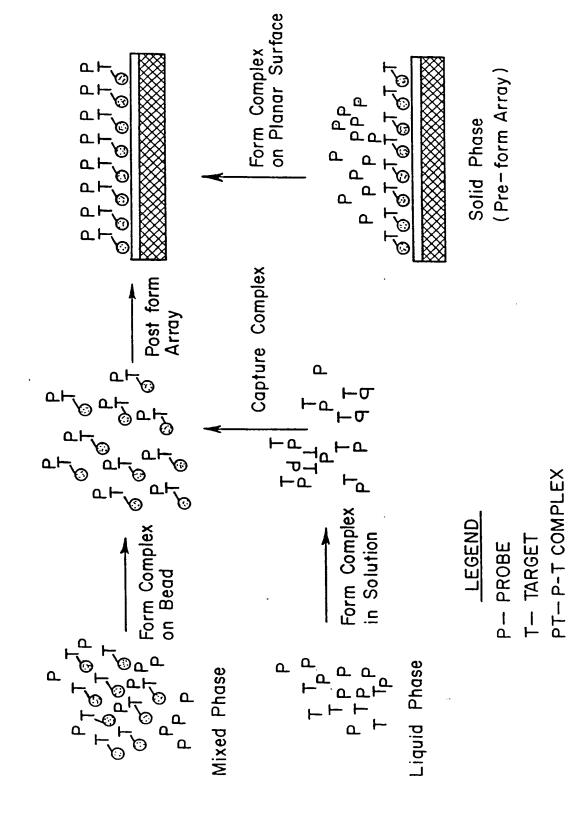


FIG. 6b



FIG. 6c





Transverse Flow 363 Flow along Conduit ල **ဖ O**OO 0 ග ඉම ග 0 0 ල Ø (3)) တ တ တ တ 0 0 0 0 0 30°0 0 @ @ * (S) ®FI 0 0 6 0 0 **0** 0 0 O,

£ _1

FIG. 9b

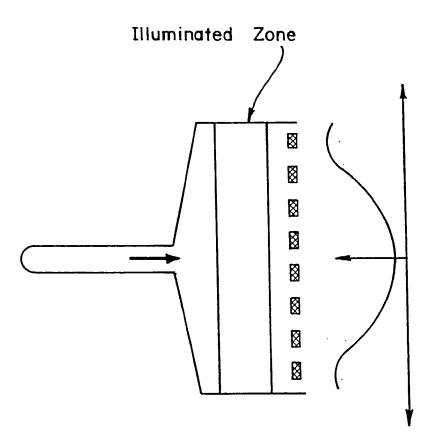


FIG. 9c



L ...

FIG. IIa

FIG. 11b

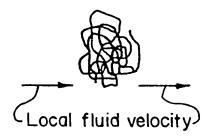
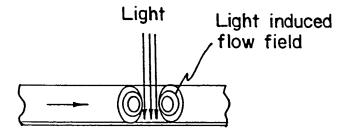
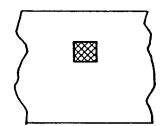
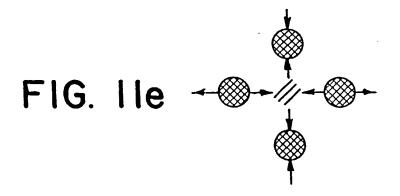


FIG. IIc

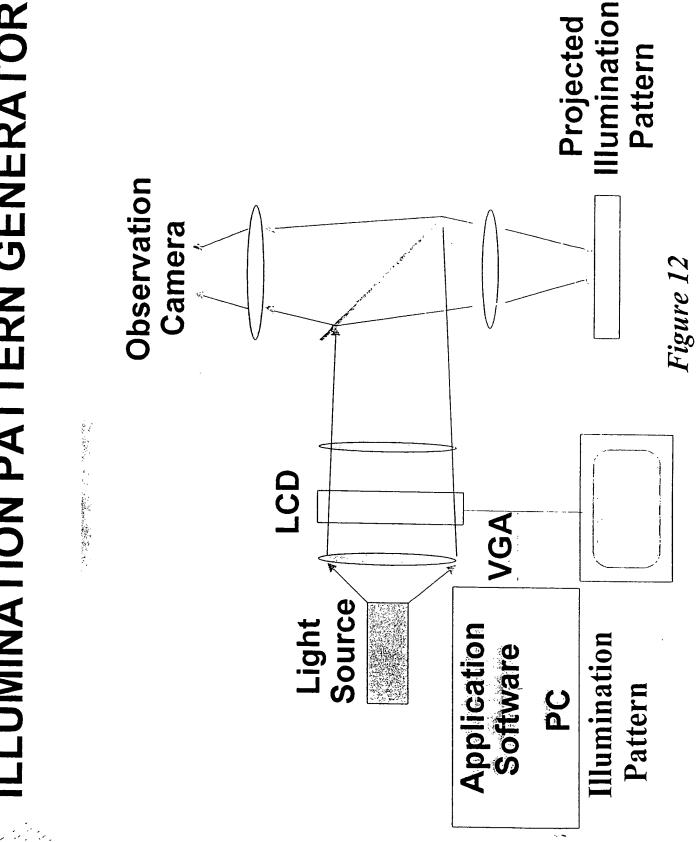
FIG. 11d







ILLUMINATION PATTERN GENERATOR



LCD-PARSE OPTICAL DESIGN

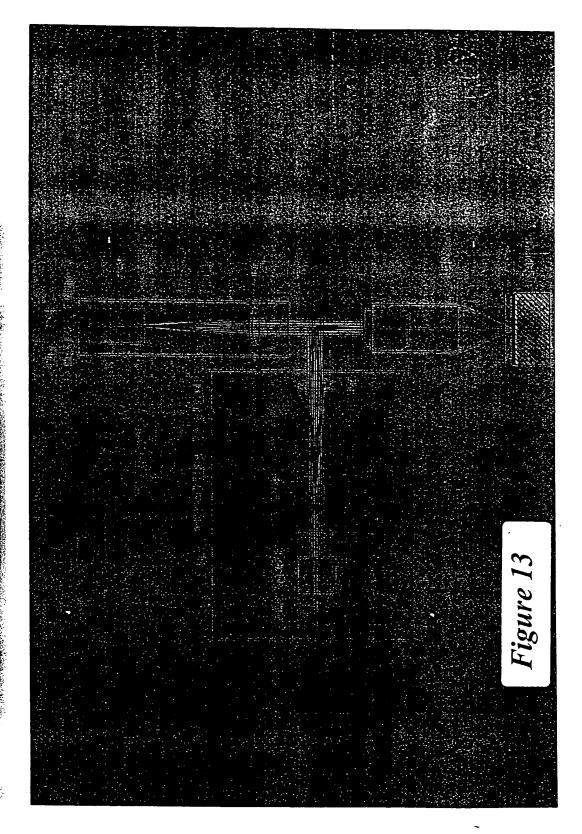




Figure 14c Figure 14d ARRAY SHAPE ADJUSTMENTS HORIZONTAL. LINE CIRCLE Figure 14b Figure 14a

SQUARE

VERTICAL LINE

COLLECTION AND ARRAY ASSEMBLY

THE THE PROPERTY OF THE PROPER

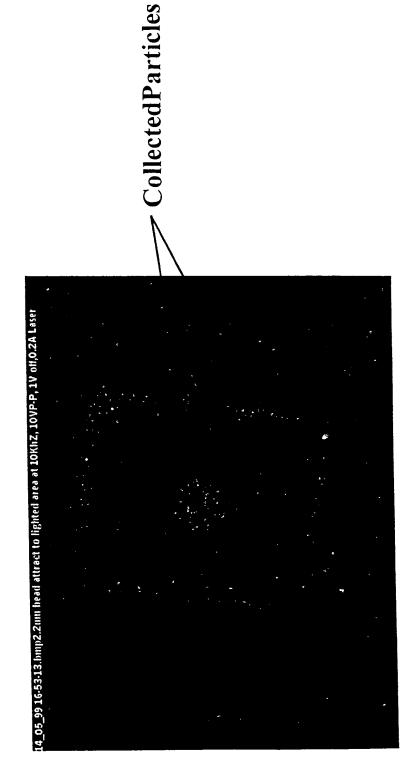


Figure 15a

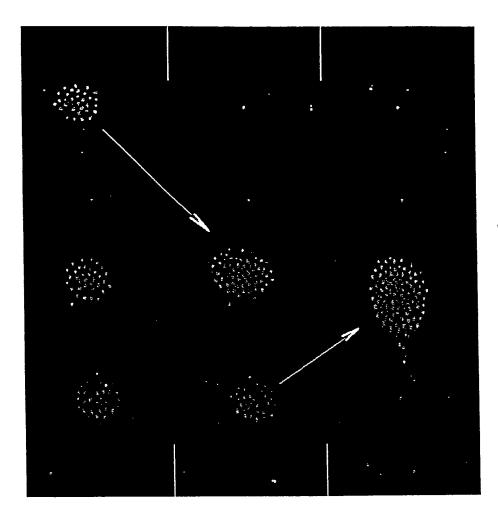
EXPULSION AND CONFINEMENT

Illuminated Regions **Confined Particles** "Ghost" Image 14_05_99 16-54-05.bmp2.2nm bead Rejected from lighted area at 10KhZ, 10VP-P, 1V off,0.25 A Lase

Figure 15b



DRAG AND DROP



L ...

Figure 16

Programmable Array Reconfiguration and Segmentation

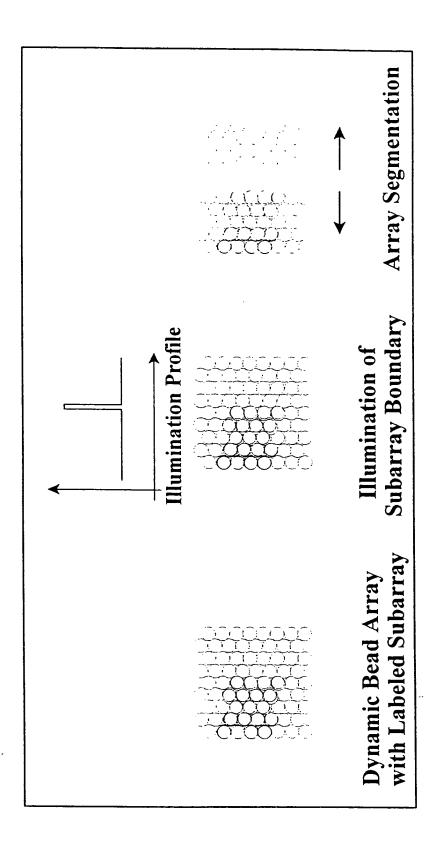
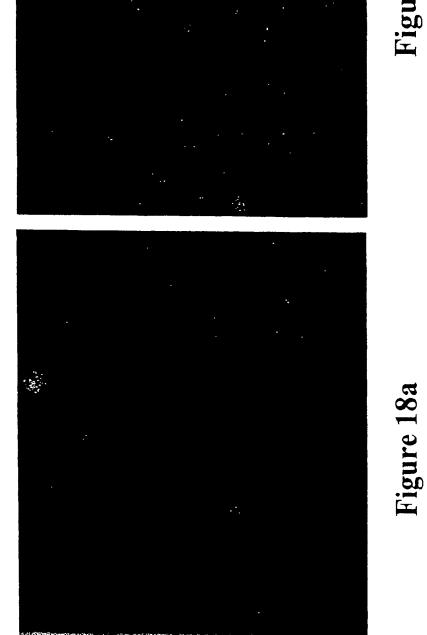


Figure 17

4 ...

LCD PARSE





LCD PARSE

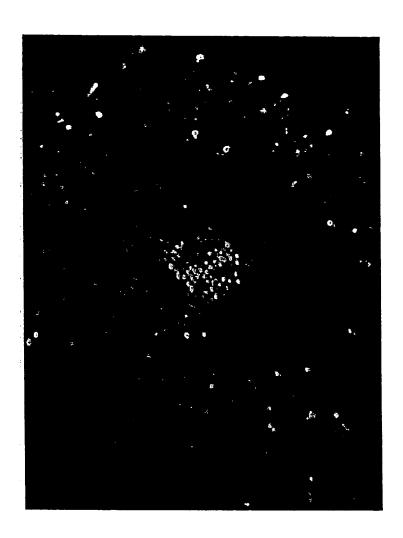
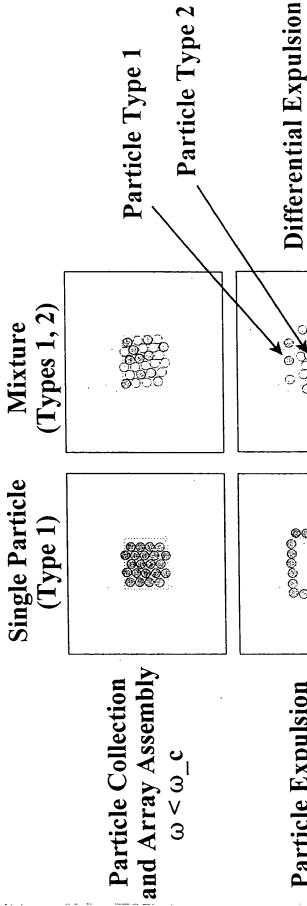


Figure 19

FRACTIONATION

Differential Frequency Dependence of Particle Expulsion (NOTE: ω_c denotes a characeristic frequency)



Particle Expulsion $\omega_c < \omega$

Figure 20a

 ω_c (Type 1) < ω_c (Type 2)

 $\omega_{c}(1) < \omega < \omega_{c}(2)$

FRACTIONATION

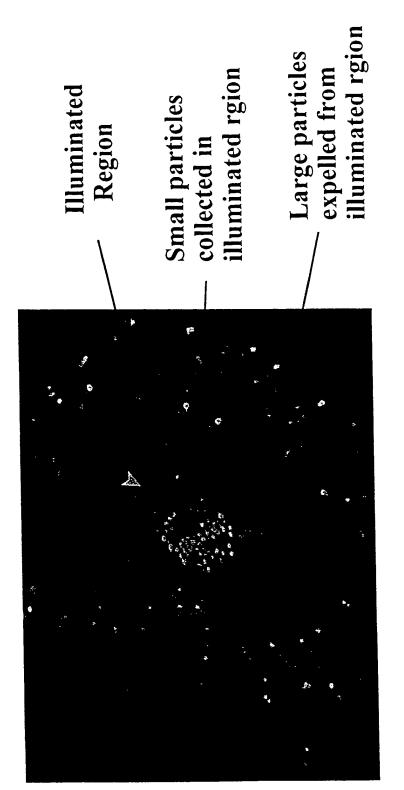


Figure 20b

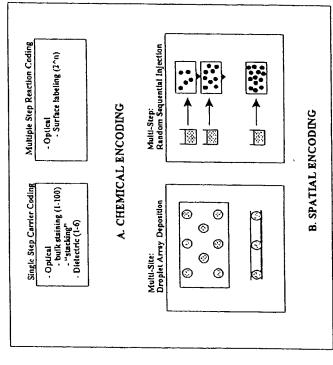
LCD PARSE

Figure 21a

Figure 21b

Dielectric Sorting

Encoding Methodologies

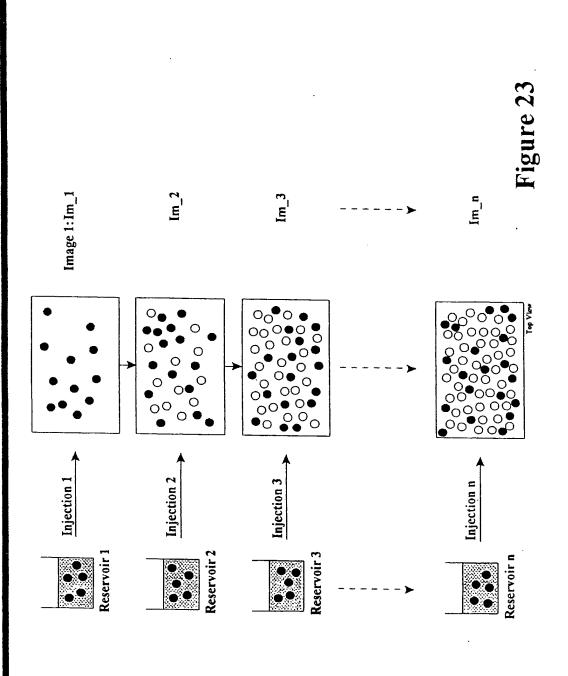


1 - Pre-Processing

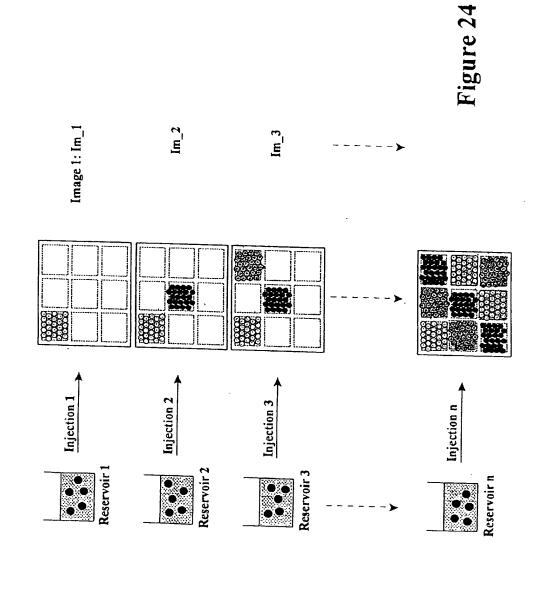
Figure 22a

Array Segmentation (PARSE) Selective Anchoring ("Painting") ၀ စစ် စ 2 - Post-Processing

RANDOM SEQUENTIAL INJECTION



LIGHT-CONTROLLED ARRAY PLACEMENT SEQUENTIAL INJECTION &



MACRO-TO-MICRO TANSITION

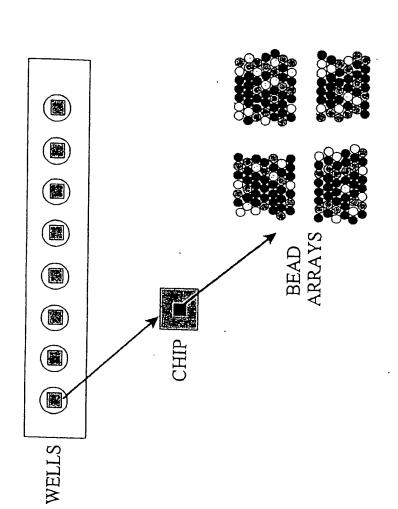


Figure 25a

ARRAY ENCODING

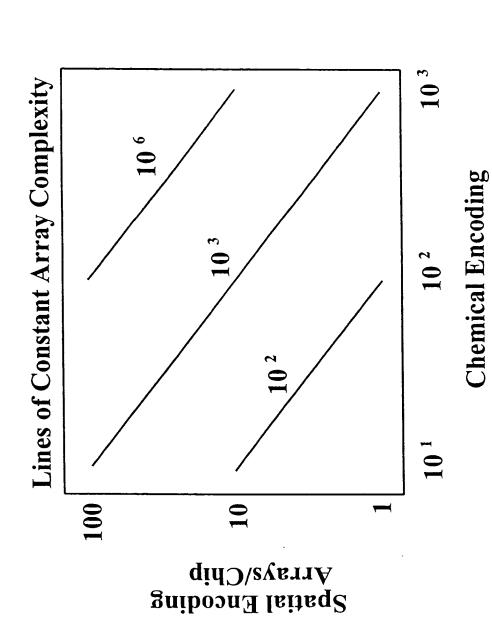
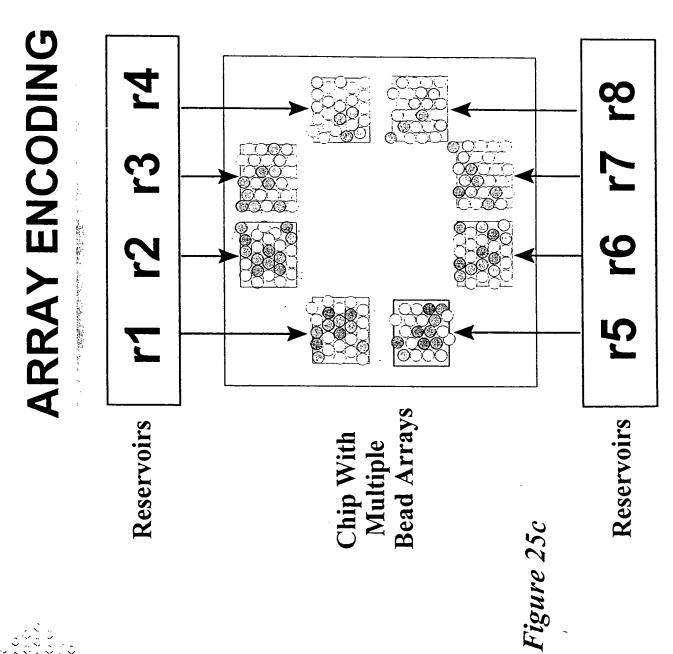


Figure 25b

Codes/Array





SEQUENTIAL ASSEMBLY: "BANDING"

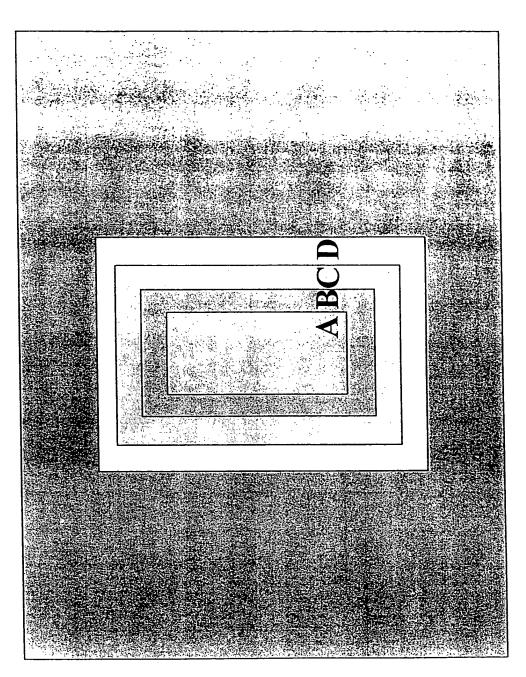
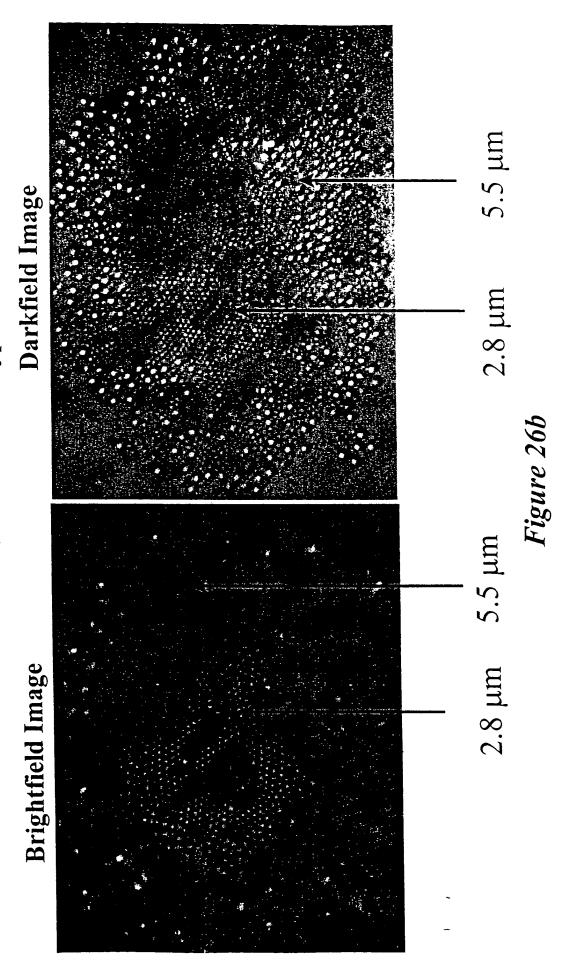


Figure 26a



SEQUENTIAL ASSEMBLY: "BANDING"

Mixture of Two Particle Types



LCD PARSE

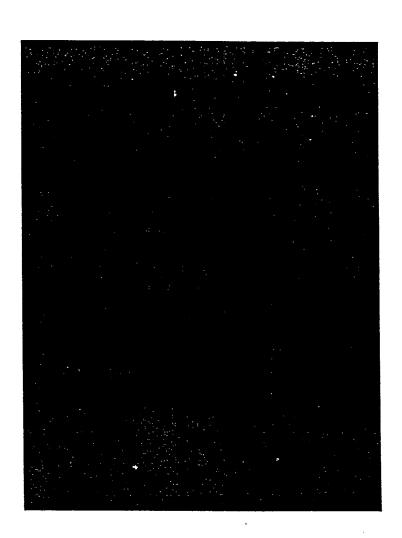


Figure 27

ARRAY OF RANDOM SUBARRAYS

A UNIQUE TWO-DIMENENSIONAL BAR CODE

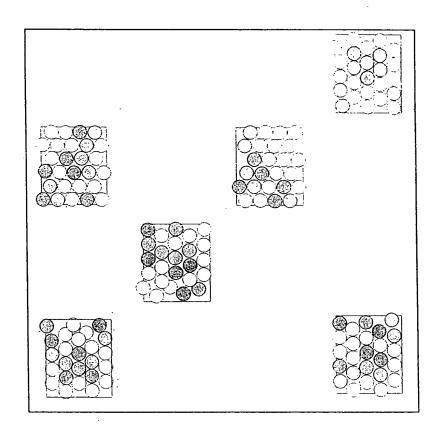


Figure 28



LIGHT-INDUCED FLUID FLOW

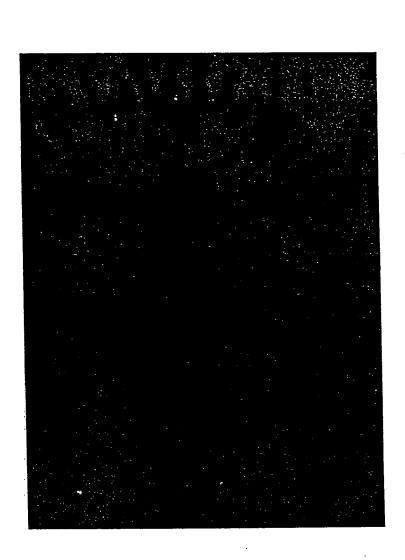


Figure 29